



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/534,887

05/13/2005

Stefan Bickert

49-003-TN

8690

23400 7590 01/28/2009

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER

PERUNGAVOOR, SATHYANARAYA V

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

01/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,887	Applicant(s) BICKERT ET AL.	
	Examiner SATH V. PERUNGAVOOR	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/13/2005; 03/04/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

[1] The first page of the specification does not cross reference priority applications. See 37 CFR 1.78 and MPEP § 201.11. This can be made by an amendment to the specification or by filing an application data sheet.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

[2] Claims 1-18 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. The claims recite process steps without being tied to an apparatus/system, such as a computer or processor.

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[3] Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd [US 5,272,535] in view of Yee et al. ("Yee") [US 6,322,216 B1].

Regarding claim 1, Elabd discloses the following claim limitations:

A method for detecting a characteristic of at least one object *[abstract]*, in which a. optical radiation influenced by the object (*i.e. illumination reflected by the scene being imaged*) is fed to an image sensor *[col. 3, ll. 49-51]*, b. at least two different partial images (*i.e. field 1, field 2...field N*) consisting of pixels are read out in succession from the image sensor (*i.e. 12*), and values assigned to the pixels are fed to an evaluation unit (*i.e. 61*) *[fig. 4G]*, d. the partial images are combined to form a total image (*i.e. 24*) that is output for further processing *[fig. 4G; col. 7, ll. 30-48]*.

Elabd does not explicitly disclose the following claim limitations:

c. the characteristic of the object is determined in each case from the values that are assigned to a partial image, and

However, in the same field of endeavor Yee discloses the deficient claim limitations, as follows:

Art Unit: 2624

The characteristic of the object is determined (*i.e. movement of the eye*) in each case from the values that are assigned to an image [fig. 8; col. 6, ll. 44-55].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Yee with Elabd and utilize partial images instead of whole images the reasoning being to enable real time processing with a small buffer [see US 7,116,358 B1 at col. 38, ll. 45-62].

Regarding claim 2, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the determination of the characteristics from values of a partial image is performed simultaneously at least in part with the reading-out of a following partial image [col. 8, ll. 49-68].

Regarding claim 3, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the partial images do not overlap one another (*i.e. this inherent property of fields in interlace*) [fig. 4G; col. 7, ll. 30-48].

Regarding claim 4, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the partial images are assembled from at least two incoherent pixel areas (*i.e. fields*) [fig. 4G; col. 7, ll. 30-48].

Regarding claim 5, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the partial images are assembled in each case from a number of completely read-out pixel rows of the image sensor [col. 3, ll. 54-65].

Regarding claim 6, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the partial images are assembled in each case from a number of only partially read-out pixel rows (*i.e. field*) of the image sensor [fig. 4G; col. 7, ll. 30-48].

Regarding claim 7, Elabd meets the claim limitations, as follows:

The method as claimed in claim 5, wherein the pixel rows of a partial image are spaced apart from one another in each case by a prescribed number of pixel rows that are not to be read out (*i.e. this an inherent property of fields, in even field the odd is not read*) [fig. 4G; col. 7, ll. 30-48].

Regarding claim 8, Elabd meets the claim limitations, as follows:

The method as claimed in claim 5, wherein the read-out sequence of a second partial image read out following on from a first partial image is offset from the first partial image by a pixel row (*i.e. this an inherent property of fields, a even field is one row offset from an odd field*) [fig. 4G; col. 7, ll. 30-48].

Regarding claim 9, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the partial images are read out in such a time that at least 10 total images per second can be output [col. 7, ll. 49-54].

Regarding claim 10, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein a partial image consists of only so many pixels that the reading-out of a partial image and the determination of the characteristic can be performed within 10 ms in each case [col. 7, ll. 49-68].

Regarding claim 11, Yee meets the claim limitations, as follows:

The method as claimed in claim 1, wherein at least one parameter of the object from the group of position (*i.e. movement of the eye*), dimension, shape, change in shape, speed of movement, color, brightness, optical reflection behavior of the object is determined as the characteristic [fig. 8; col. 6, ll. 44-55].

Regarding claim 12, Yee meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the characteristic (*i.e. movement*) is determined with the aid of a prescription of characteristics (*i.e. initial reference*) [col. 10, ll. 49-53].

Regarding claim 13, Yee meets the claim limitations, as follows:

The method as claimed in claim 12, wherein the prescription of characteristics is derived from at least one already determined characteristic (*i.e. initial reference*) [col. 10, ll. 49-53].

Regarding claim 14, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the read-out sequence of a partial image is controlled with the aid of a characteristic of the object determined from a preceding partial image (*i.e. this an inherent property of fields, in even field the odd is not read*) [fig. 4G; col. 7, ll. 30-48].

Regarding claim 15, Yee meets the claim limitations, as follows:

The method as claimed in claim 1, wherein an appliance (*i.e. laser*) is controlled with the aid of at least one value (*i.e. change in position*) obtained from the characteristic of the object [col. 5, ll. 40-47].

Regarding claim 16, Yee meets the claim limitations, as follows:

The method as claimed in claim 15, wherein an appliance from the group of a laser appliance for operating on an eye (*i.e. laser*), an aligning apparatus for positioning the image sensor relative to the position of the object, an optical irradiation apparatus, an apparatus for controlling an electrical parameter, a robot is controlled [col. 5, ll. 40-47].

Regarding claim 17, Yee meets the claim limitations, as follows:

The method as claimed in claim 1, wherein an appliance parameter (*i.e. beam position*) is regulated in conjunction with at least one value (*i.e. eye position*) obtained from the characteristic of the object [col. 5, ll. 40-47].

Regarding claim 18, Elabd meets the claim limitations, as follows:

The method as claimed in claim 1, wherein the variation in the characteristic of the object is displayed by a sequence of total images *[fig. 1A: display]*.

Contact Information

[4] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Matthew C. Bella whose telephone number is (571) 272-7778, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dated: January 28, 2009

/Sath V. Perungavoor/

Sath V. Perungavoor

Telephone: (571) 272-7455

Application/Control Number: 10/534,887
Art Unit: 2624

Page 9